

Claims

1. Rotating or pivoting device (10, 90, 110) with a housing (12) and with at least one working piston (14, 16) disposed in the housing (12) which can be subjected to a pressurizing medium and with a pivoting part (20) mounted for rotation in the housing (12) and driven for rotation by the working piston (14, 16) via of a rotating coupling mechanism (18), characterized in that the working piston (14, 16) is borne for displacement in at least one cylinder tube (22 through 28) disposed on a side of the housing.
2. Device (10, 90, 110) of claim 1, characterized in that the at least one cylinder tube (22 through 28) is structured for screwing into the housing (12) by means of threads (58).
3. The device (10, 90, 110) of claim 1 or 2, characterized in that the working piston (14, 16) can be subjected to pressure via two pressure sides (40, 42, 44, 46).
4. Device (10, 90, 110) of claim 3, characterized in that the cylinder tubes (22 through 28) extend at at least both pressure sides (40, 42 and 44, 46).
5. The device (10, 90, 110) of claim 3, characterized in that each pressure side (40, 42 and 44, 46) of the piston is borne for displacement in a separate cylinder tube (22 through 28).

6. Device (10, 90, 110) according to any one of the preceding claims, characterized in that the rotational coupling (18) comprises a piston-sided rack-like coupling section (48, 50) and a pinion (52) disposed on the pivoting member side in combed engagement with the coupling section (48, 50).
7. Device (10, 90, 110) according to any one of the preceding claims, characterized in that the rotating or coupling device includes at least one connection module (62, 64, 92, 112) disposed on a free end side of the at least one cylinder tube (22 through 28).
8. Device (10, 90, 110) of claim 7, characterized in that the free end side of the at least one cylinder tube (22 through 28) comprises an outer and/or inner thread (66) for screwing on the connection module (62, 64, 92, 112).
9. Device (10, 90, 110) of claim 7 or 8, characterized in that the connection module (62, 64, 92, 112) is sealed at a radially outer side with respect to the housing (12), wherein an air chamber (84) is formed which is connected to the respective pressure chamber (32, 34, 36, 38).
10. The device (10, 90, 110) of claim 8 and 9, characterized in that sealing means (68) are disposed between a radially outer jacket surface of the connection module (62, 64, 92, 112) and a radially inner cylinder surface (82) of the housing (12) in such a manner that an air passage is created independent of the screw in depth of the connection module (62, 64).

11. Device (10, 90, 110) of claim 9 or 10, the connection module (62, 64) has at least one recess extending in the axial direction (88) on an inner side for connection of the air chamber (84) to the pressure chamber (32, 34, 36, 38).
12. The device (10, 90, 110) of claim 11, characterized in that the recess (88) includes a radially extending opening in the cylinder tube end side.
13. Connection module (62, 64, 92, 112) for a rotation or pivoting device (10, 90, 110) according to any one of the preceding claims which is suitable for disposition on the free end of a cylinder tube (22 through 28) accepting a working piston (14, 16) of the rotation or pivoting device.
14. Connection module (62, 64, 92, 112) of claim 13, characterized in that the connection module has an outer and/or inner thread for screwing on to a free end of the cylinder tube (22 through 28).
15. Connection module (62) of claim 13 or 14, characterized in that the connection module is configured as a cover component for closing off the free end of the cylinder tube (22 through 28).
16. Connection module (64, 92) of claim 13, 14 or 15, characterized in that the connection module is configured as an abutment part for the axial stroke limitation of the working piston (14, 16).

17. Connection module (62, 64, 92, 112) according to any one of the claims 13 through 16, characterized in that the connection module includes damping means for damping abutment of the working piston (14, 16).
18. Connection module (64, 92) according to any one of the claims 13 through 17, characterized in that the connection module can be screwed onto the cylinder tube at differing depths to change the stroke of the working piston (14, 16) and therefore the rotational angle of the pivoting part (20) in dependence on the screw-in depth of the connection module.
19. Connection module (64, 92) of claim 18, characterized in that a arresting means (100) for fixing a location of the connection module at a pre-determined axial position are provided on the connection module and/or on the housing (12, 113).
20. Connection module (64, 92, 112) according to any one of the claims 13 through 19, characterized in that the connection module includes a sleeve (72, 116) which can be screwed onto the cylinder tube as well as a closing part (74) in screwed engagement with the sleeve (72, 116).
21. Connection module (64, 92, 112) of claim 20, characterized in that the sleeves (72, 116) can be adjusted in an axial direction with respect to the cylinder tubes (22 through 28) and/or that the closing part (74) can be adjusted in the axial direction with respect to the sleeves (72, 116).

22. Connection module (112) according to any one of the claims 13 through 21, characterized in that the connection module includes an abutment part (114) which can be displaced into at least an axially inner and an axially outer position, wherein the abutment part (114) can be locked in at least its inner position.
23. Connection module (62, 64, 92, 112) according to any one of the claims 9 through 22, characterized in that the connection module (62, 64) has at least one recess (88) extending in an axial direction at an inner side for fashioning a connection between the air chamber (84) and the pressure chamber (32, 34, 36, 38).